Electronic TUBE
KEN-RAD

12J5

Description and Rating

GENERAL-PURPOSE TRIODE

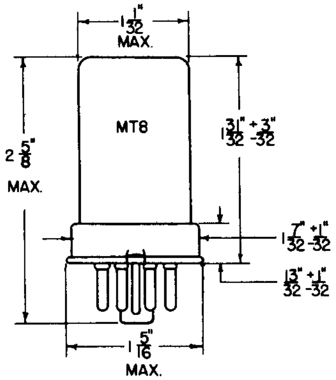
GENERAL DESCRIPTION

Principal Application: The 12J5 is a medium-mu general-purpose triode designed for use as an amplifier, an oscillator, or a detector. Except for heater ratings, the 12J5 is identical to the 6J5.

Cathode:	Coated Unipotential
Heater Voltage (A-C or D-C)	12.6 Volts
Heater Current	0.15 Ampere
Envelope:	MT-8, Metal Shell
Base:	B6-23, Small Wafer Octal 6-Pin

Mounting Position:	Any	
Direct Interelectrode Capacitances:*		
Grid to Plate	3.4	μμf
Input	3.4	μμf
Output	3.6	μμf

PHYSICAL DIMENSIONS

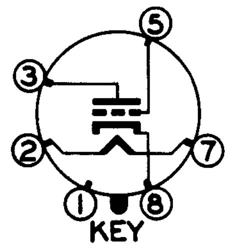


RMA 8-1

TERMINAL CONNECTIONS

Pin 1 - Shell
Pin 2 - Heater
Pin 3 - Plate
Pin 5 - Grid
Pin 7 - Heater
Pin 8 - Cathode

BASING DIAGRAM



RMA 6Q
BOTTOM VIEW

MAXIMUM RATINGS

DESIGN CENTER VALUES:

Plate Voltage	300	Volts
Positive D-C Grid Voltage	0	Volts
Plate Dissipation	2.5	Watts
Total Cathode Current	20	Milliamperes
D-C Heater-Cathode Voltage	90	Volts

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A_1 AMPLIFIER

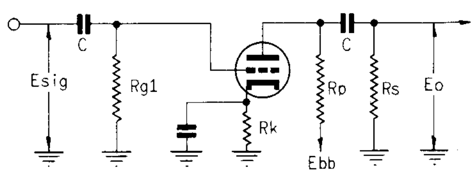
Plate Voltage	90	250	Volts
Grid Bias Voltage **	0	-8	Volts
Amplification Factor	20	20	
Plate Resistance	6700	7700	Ohms
Transconductance	3000	2600	Micromhos
Plate Current	10	9.0	Milliamperes

* *With shell connected to cathode*

** *The d-c resistance in the grid circuit under maximum rated conditions should not exceed 1.0 megohm.*

CLASS A RESISTANCE-COUPLED AMPLIFIER

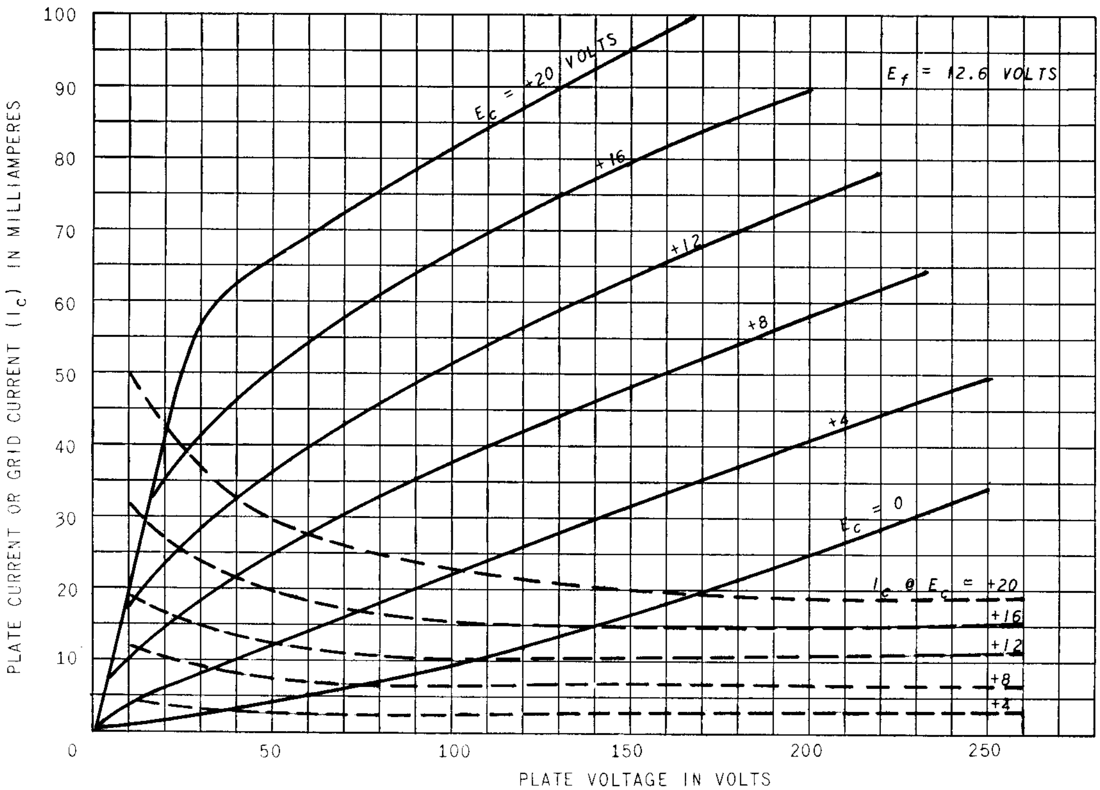
Rp Meg.	Rg1 Meg.	Rs Meg.	Ebb = 90 Volts			Ebb = 180 Volts			Ebb = 300 Volts		
			Rk	Gain	Eo	Rk	Gain	Eo	Rk	Gain	Eo
0.10	*	0.10	3300	14	13	2200	14	26	1800	14	40
0.10	*	0.24	3600	14	16	2700	15	33	2200	15	51
0.24	*	0.24	7500	14	16	5100	15	30	4300	15	44
0.24	*	0.51	9100	14	19	6800	15	39	5100	15	54
0.51	*	0.51	13000	14	16	9100	15	30	6800	16	40
0.51	*	1.0	15000	14	19	10000	16	32	7500	16	45
0.24	10	0.24	0	15	13	0	16	33	0	17	46
0.24	10	0.51	0	16	17	0	17	38	0	18	62
0.51	10	0.51	0	16	14	0	18	32	0	18	53
0.51	10	1.0	0	17	18	0	18	41	0	19	68



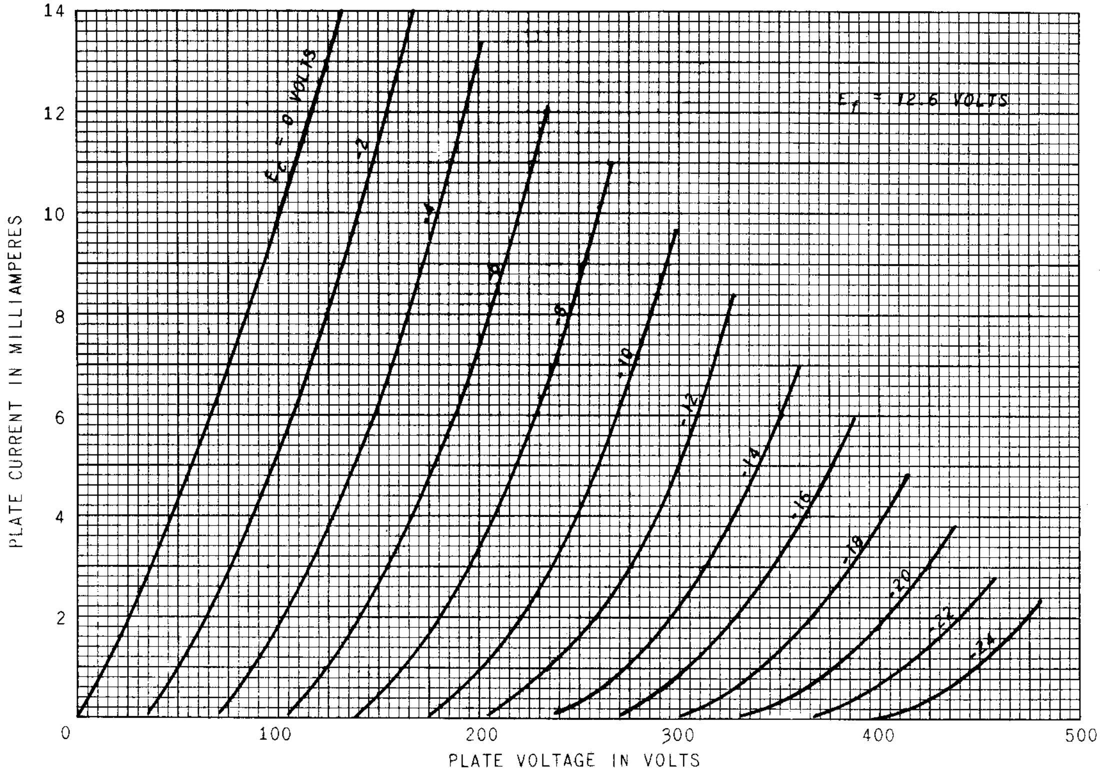
Note: Coupling capacitors (C) should be selected to give desired frequency response. Rk should be adequately by-passed.

Notes: 1. Eo is maximum RMS voltage output for five percent (5%) total harmonic distortion. 2. Gain measured at 2.0 volts RMS output. 3. For zero-bias data, generator impedance is negligible. *Value of Rg1 is non-critical.

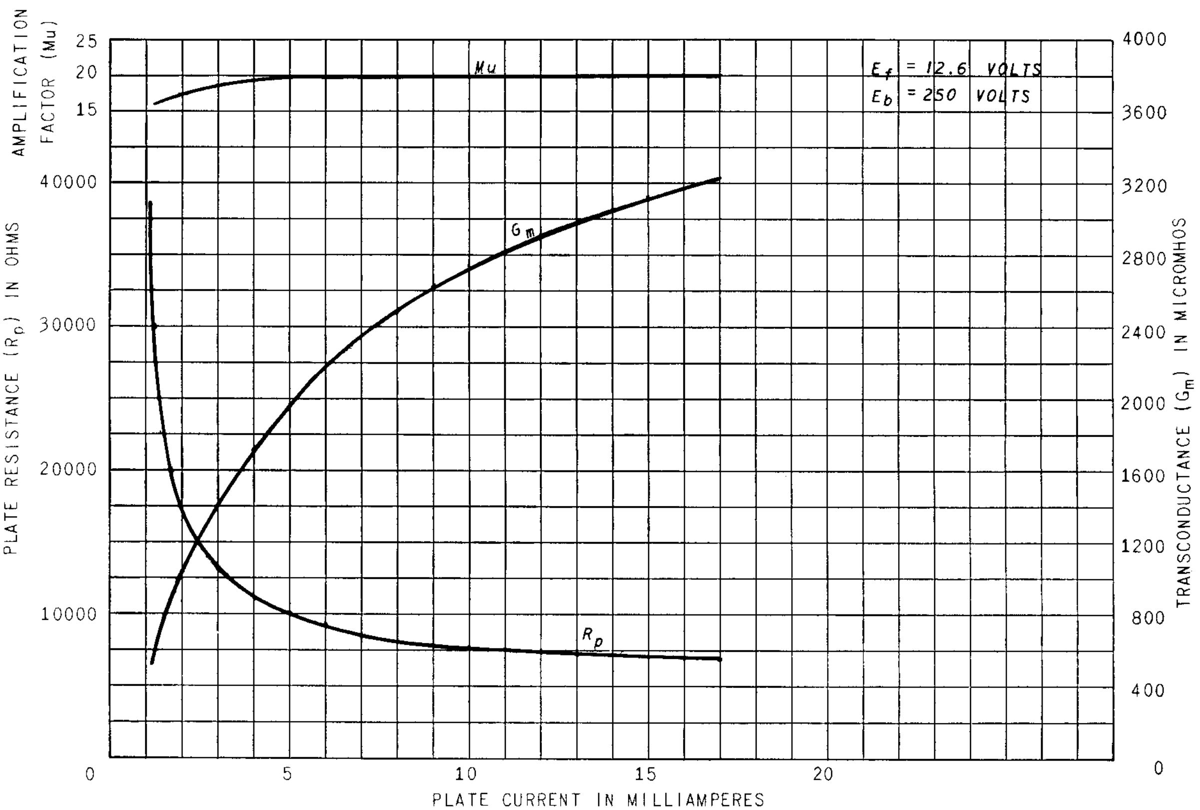
AVERAGE PLATE CHARACTERISTICS



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Tube Divisions, Electronics Department

GENERAL ELECTRIC

Schenectady, N. Y.